

REMARKS

By this Amendment, Applicants amend claims 1, 11, and 25, and adds new claim 28. Claims 1-6, 8-12, 14, 15, 21, 22, and 24-28 are now pending in this application.

In the Final Office Action,¹ the Examiner rejected claims 1-6, 8-12, 14, 15, 21, 22, and 24-27 under 35 U.S.C. § 112, second paragraph and rejected claims 1-6, 8-12, 14, 15, 21, 22, and 24-27 under 35 U.S.C. § 103(a) as being unpatentable over Saylor et al. (U.S. Patent No. 5,487,139) in view of Moore (U.S. Patent No. 6,377,210).

I. REJECTION UNDER 35 U.S.C. § 112, 21

Applicants respectfully traverse the rejection of claims 1-6, 8-12, 14, 15, 21, 22, and 24-27 under 35 U.S.C. § 112, second paragraph.

The Examiner contends that the claims are “incomplete for missing essential elements, such omission amount to a gap between the elements,” citing MPEP § 2172.01. See Final Office Action, page 5. Applicants respectfully disagree and note that MPEP § 2172.01 indicates that “a claim which fails to interrelate essential elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. 112, second paragraph, for failure to point out and distinctly claim the invention.” However, Applicants have not defined the elements raised by the Examiner on page 2 of the Office Action as “essential elements.”

First, the Examiner alleges that “Applicant needs to specify the step of physical position of the two maps.” See Final Office Action, page 5. Applicants disagree that it

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

is required of Applicants under 35 U.S.C. § 112, second paragraph to specify with any further specificity the position of the two maps. To the contrary, as long as the claims, “when read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.” *S3, Inc. v. Nvidia Corp.*, 259 F.3d 1364, 1367, 59 USPQ2d 1745, 1747 (Fed. Cir. 2001) (quoting *Miles Laboratories, Inc. v. Shandon*, 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993)).

For example, claim 1 recites “displaying a first map in one area of a display” and “displaying a second map in a second area of the display.” One skilled in the art would appreciate that there are two maps, each in separate areas of the display. Independent claims 11 and 25 include similar recitations. Accordingly, the physical position of the first map and the second map are clearly indicated in the claim and, moreover, one of skill in the art would clearly understand the scope of the claimed subject matter.

Second, the Examiner alleges that “Applicant needs to specify the step of identifying and computing the points are done automatically or manually.” See Final Office Action, page 2. Again, Applicants disagree. 35 U.S.C. § 112, second paragraph does not require Applicants to limit the identification and computation of points to automatic or manual process. Since the claims, when read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, nothing further is required. See *S3, Inc. v. Nvidia Corp.*

Third, the Examiner contends that is necessary to include the “steps of how can users distinguish the points between the raster and Georeferenced maps?” See Final Office Action, page 5. Applicants again disagree that the claims omit necessary elements, as the Examiner has alleged. Furthermore, Applicants believe that the claim

language itself answers the Examiner's question. For example, claim 1 recites "displaying a first map in one area of a display" and "displaying a second map in a second area of the display." Points are then received on the first map or the second map. Since the user would appreciate that two maps are displayed in separate areas of a display, the user would be able to distinguish between points on the first map and points on the other map. Therefore, Applicants submit that the claims therefore meet the requirements of 35 U.S.C. § 112, second paragraph, and request that the Examiner withdraw the rejection.

II. REJECTION UNDER 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejection of claims 1-6, 8-12, 14, 15, 21, 22, and 24-27 under 35 U.S.C. § 103(a) as being unpatentable over Saylor in view of Moore. To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must demonstrate each of three requirements. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. See M.P.E.P. § 2143.01 (8th ed. 2001). Third, a reasonable expectation of success must exist. See M.P.E.P. § 2143.02 (8th ed. 2001). Moreover, each of these requirements must be found in the prior art, not in applicant's disclosure. See M.P.E.P. § 2143 (8th ed. 2001).

Claim 1 recites a method of georeferencing a raster map including, among other steps, “automatically computing a georeferencing function that converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations.” Saylor and Moore, whether taken alone or in combination, do not disclose or suggest at least this element of claim 1.

In the Response to Arguments section of the Final Office Action, the Examiner contends that Saylor in FIG. 2, step 36 “suggests the conversion of Latitude/Longitude (i.e., geographic coordinates) into X, Y coordinates, i.e. clear teaching of association between Latitude/Longitude, and X, Y coordinates.” See pages 3-4. Further, the Examiner contends that Saylor at column 5, lines 33-35 that “software can be used to automate the process.” See Final Office Action, page 4. Applicants disagree that these teachings disclose or suggest the elements of claim 1 for at least these reasons.

Saylor teaches that “latitude/longitude readings must be converted to X, Y coordinate pairs.” See col. 5, lines 24-25. The Examiner contends that this conversion constitutes the claimed “georeferencing function.” Applicants disagree. While Saylor indicates such conversion takes place, Saylor does not disclose or suggest how this conversion occurs, nor does Saylor disclose or suggest converting between pixel coordinates of a first map and geographic coordinates of a second map. In particular, Saylor does not disclose or suggest converting from a coordinate system of a “first map” to a coordinate system of a “second map” because Saylor merely converts readings from

a single map. Converting readings from a single map, however, does not constitute or suggest the claimed “georeferencing function” that “converts between the pixel coordinates of the first map and the geographic coordinates of the second map,” as required by claim 1 (emphasis added).

Furthermore, for further clarity, Applicants have amended claim 1 to recite “receiving a first point on the first map and a corresponding first point on the second map, wherein the first point on the first map and the corresponding first point on the second map represent identical locations” and “receiving a second point on the first map and a corresponding second point on the second map, wherein the second point on the first map and the corresponding second point on the second map represent identical locations” (emphasis added). Saylor does not disclose or suggest receiving point pairs of “corresponding” points wherein each point of the point pairs “represent identical locations.” In particular, Saylor does not disclose that a “georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map,” as required by claim 1.

Applicants also point out that, in an alignment process implemented by the Saylor system, an approximate alignment of a raster image and a vector image may be made by “eyeballing” the raster image to the vector image. See col. 5, lines 29-42. As another approach, Saylor teaches that software may be used for “automated rectification of the raster map relative to the vector map.” See col. 5, lines 48-53. Applicants note that “rectification” is the process of removing the effects of tilt, relief, or other nonsystematic distortions from imagery, photographs, or maps. However,

manually “eyeballing” the raster image to the vector image or using rectification to match the raster image to the vector image does not constitute “automatically computing a georeferencing function that converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations,” as recited in claim 1.

As discussed above, Saylor fails to disclose or suggest several elements recited in claim 1. Moore, the secondary reference applied by the Examiner, fails to compensate for the above-described deficiencies of Saylor. In particular, in the Final Office Action, the Examiner appears to contend that Moore discloses “receiving a corresponding second point on the second map.” See page 7. Applicants disagree.

The Examiner cites FIG. 16, but the citation is not suitable. In connection with FIG. 16, Moore teaches that a “Geo-Code” identifies the street address and city-town designation of a particular vehicle location, building, or other landmark which has been geographically referenced on a particular map.” See col. 12, lines 6-9. To do so, “the street name and building number [are matched] with the data in the map server 88.” See col. 12, lines 25-30. These teachings, however, do not constitute or suggest at least “receiving a first point on the first map and a corresponding first point on the second map, wherein the first point on the first map and the corresponding first point on the second map represent identical locations” and “receiving a second point on the first map and a corresponding second point on the second map, wherein the second point

on the first map and the corresponding second point on the second map represent identical locations,” as recited in claim 1 (emphasis added).

Furthermore, Moore also does not disclose or suggest “automatically computing a georeferencing function that converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations,” as recited in claim 1.

As discussed above, Moore discloses that a “Geo-Code” operation identifies the street address and city/town designation of a particular vehicle location, building, or other landmark which has been geographically referenced on a particular map.” See col. 12, lines 6-9. In particular, a “location of an entity, such as a street address ... [is determined] in a geographic coordinate system using the process described above to place the entity in the correct pixel location on the map display.” See col. 12, lines 20-24. The process disclosed by Moore uses “underlying map data 40 [that] can come from any source.... Static maps from any source are prepared in advance using a geographic information system, such as Mapinfo and Intergraph's Microstation, scanned images or manually hand plotted drawings that are scanned to create digital images. Certain coordinate references are registered by registering certain specific pixels in a map display with true earth coordinate projections, for example, longitude and latitude. This enables the vehicle locations as generated from the GPS data received by the datacenter 20 from each mobile equipment 11 to be properly placed on a particular map

display, such as the map display 44 shown in FIG. 10.” See col. 9, lines 30-40. As disclosed, coordinate references are registered by registering certain specific pixels in a single map display with true earth coordinate projections, such as longitude and latitude. Accordingly, Moore relies upon predetermined correspondences between pixels of a single map and longitude and latitude. However, Moore also does not disclose or suggest at least “automatically computing a georeferencing function that converts between the pixel coordinates of the first map and the geographic coordinates of the second map, wherein the georeferencing function is based on the first and the second points received on the first map and the corresponding first and second points received on the second map, and assigns corresponding geographic coordinates to any one of the plurality of pixel locations,” as recited in claim 1.

For at least the above reasons, the Examiner has not shown that Saylor and Moore, taken alone or in any proper combination, disclose or suggest all of the elements of claim 1. Accordingly, a *prima facie* case of obviousness has not been established. Therefore, the Examiner should withdraw the rejection of claim 1, as well as the rejection of claims 2-6, 8-10, 21, 24, and 27, which depend from claim 1.

Independent claims 11 and 25, although of different scope from claim 1, include similar recitations as claim 1. Accordingly, for at least the reasons set forth above regarding claim 1, independent claims 11 and 25 are also allowable over Saylor in view of Moore. Therefore, the Examiner should withdraw the rejection of claims 11 and 25, as well as the rejection of claims 12, 14, 15, 22, and 26 at least due to their dependence from claims 11 and 25.

Further, new independent claim 28, although of a different scope from claim 1, includes recitations similar in scope to claim 1. Accordingly, for at least the reasons set forth above regarding claim 1, independent claim 28 is also allowable over Saylor in view of Moore.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: May 17, 2006

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